

2022 Ass 2 MCQ

Question 1

A formal specification of the system may be developed and mathematically analysed for ?

- a. Inconsistency
- b. System Development
- c. System errors
- d. Consistency

Question 2

Availability is the probability of failure-free operation over a specified time, in a given environment, for a specific purpose?

Select one:

True False

Question 3

Reliability is the probability that a system, at a point in time, will be operational and able to deliver the requested services?

Select one:

True False

Question 4

Refactoring which is making program changes to preserve a system functionality is a form of Maintenance to repair software faults?

Select one:

True False

Question 5

A backup mechanism exploits on reusable components in its design?

Select one:

True

False

Question 6

Testing is part of a broader process of Software verification and validation.

True

False

Question 7

The aim of Software validation is to ensure that the software meets the customer needs.

Select one:

True

False

Question 8

Negotiating the test results is one of the stages in the acceptance testing process. Select one:

True

False

Question 9

Skills shortage can be regarded as one of the problems of maintaining business legacy systems?

Select one:

True False

Question 10

Re-processing is a process of making improvement to a program to slow down degradation.

Select one:

True False

Question 11

Probability of failure on demand (POFOD), Rate of occurrence of failures (ROCOF), Availability (AVAIL) are three metrics used to specify reliability and availability of a system?

Select one:

True

False

Question 12

A graphical workflow language, such as BPMN, may be used to describe a business process and the.....used in the process?

- a. Approach
- b. Technique
- c. Service
- d. Style

Question 13

A hazard is a system state that could be lead to ?

- a. System crush
- b. Damage
- c. System failure
- d. Accident

Question 14

Application systems reuse is concerned with the..... of large-scale, off the shelf systems?

- a. Re-use
- b. Re-scaling
- c. Re-development
- d. Re-producing

Time left 1... (>

Question 15

EPR systems usually requires extensive configuration to adapt them to the requirements of each organization where they are ?

- a. Captured
- b. Processed
- c. Installed
- d. Used

Question 16

ERP systems are used in almost all large companies to support some or all of their ?

- a. Process
- b. Functions
- c. Return on investment
- d. Concepts

Question 17

Hazard analysis is the process of discovering the root causes of hazard in a system?

- a. Agile critical
- b. Error-free
- c. Risk-free
- d. Safety-critical

Question 18

Model checking is a formal approach to analysis that exhaustively checks all states in a system for potential errors.

- a. Business
- b. Dynamic
- c. Static
- d. Systems

Question 19

REST is an architectural style based on transferring representations of resources from a server

- a. Central database
- b. Cloud
- c. Relational database
- d. Client

Question 20

Time left 1... (>

Safety-critical system are systems in which it is essential that the system operations is always ?

- a. Secure
- b. Safe
- c. Hazard
- d. Critical

Question 21

Safety-critical systems are systems whose failures can lead to human ?

- a. Delay
- b. Success
- c. Injury
- d. Advancement

Question 22

Service-oriented system have loosely couple architecture where service binding may change during systems ?

- a. Maintenance
- b. Execution
- c. Testing
- d. Development

Question 23

Services may be implemented within a service- oriented architecture using a set of web services standards?

- a. HTTP
- b. XML-based
- c. JavaScript
- d. Apache

Question 24

Sociotechnical systems are so complex that it is impossible to understand them as a ?

- a. Stack
- b. Whole
- c. Layers
- d. Holistic approach

Question 25

Static analysis is effective in finding errors in programs but, commonly, generates a larger number of false ?

- a. Computations
- b. Positives
- c. Alarms
- d. Narration

Question 26

Strategies to achieve and enhance dependability of a system rely on both redundancy and ?

- a. Capacity
- b. Scalability
- c. Diversity
- d. System tuning

Question 27

System dependability is important because..... of the critical system can lead to large economic losses, serious information loss, physical damage or threats to human life.

- a. Sustainability
- b. Success
- c. Failure
- d. Running

Question 28

System development is a complex process in which the elements that are part of the system are developed or purchased and then integrated to create the systems?

- a. Agile
- b. Partial
- c. Final
- d. Computer- based

Question 29

System development processes include requirements specification, design, construction, integrating and ?

- a. Documenting

- b. Testing
- c. Error-identifying
- d. Developing

Question 30

System engineering includes everything to do with procuring, specifying, development, deploying, operating and maintaining both technical and System?

- a. Sociotechnical
- b. Computer- based
- c. Technical
- d. Critical

Question 31

Systems may be developed by configuring a single, generic application systems or by integrating two or more systems

- a. Agile
- b. Application
- c. Redundant
- d. User

Question 32

The dependability of a computer system is a property of the system that reflects its ?

- a. Reliability
- b. Resilience
- c. Vulnerability
- d. Trustworthiness

Question 33

The dependability of a computer system is a system property that reflects the user's degree of in the system.

- a. Functionality
- b. Maintainability
- c. Workability
- d. Trust

Question 34

The emergent properties of a system are characteristics of the system as a whole rather than of its ?

- a. System dependencies
- b. Component parts
- c. System procurement
- d. Risk of change

Question 35

The fundamental elements in a RESTful architecture is a ?

- a. Attributes
- b. Resources
- c. Inputs
- d. Outputs

Question 36

The need for assurance in safety-critical systems has been one of the principal drivers, the development of ?

- a. Enterprise Architecture
- b. Software
- c. Distributed methods
- d. Formal methods

Question 37

The regulations and the compliance of the system applies to the sociotechnical system as a whole and not simply the software element of the ?

- a. Architecture design
- b. System
- c. Rules and policies
- d. Software process

Question 38

The reuse-based software engineering is an approach to development that tries to the reuse of existing software?

- a. Minimise
- b. Maximise
- c. Redefine
- d. Re-arrange

Question 39

The service engineering process involves identifying candidates services for ?

- a. Implementation of services
- b. Composition of services
- c. Tuning of services
- d. Configuration of services

Question 40

The starting point for generating functional safety requirements is usually domain knowledge, safety standards, and

- a. Process
- b. Regulations
- c. Procedures
- d. Reactive

Question 41

The UDDI (Universal Description, Discovery and integration) discovery standard defines the components of a service specification intended to help potential users discover the existing of ?.

- a. Service
- b. Protocol
- c. Software
- d. Application

Question 42

When a system is put into use, the operational processes and the system itself inevitably change to reflect changes to the business requirements and the environment.

- a. Desktop
- b. Application
- c. User
- d. Systems

Question 43

Which of the following attributes doesn't form part of the dependency processes of dependable software?

- a. Audible
- b. Reusable
- c. Documentable
- d. Diverse

Question 44

Which of the following below reason is true about the dependability of the systems been more important than their functionality?

- a. The data processed by the system may be maintained in different files
- b. The program style and the usage conventions are inconsistent.
- c. System failure costs may be enormous
- d. Many years maintenance usually degrades the system structure, making it increasingly

Question 45

Which of the following doesn't form part of the factors that influence system lifetimes span?

- a. Replacement cost
- b. Investment cost
- c. System procumbent costs
- d. Loss of expertise

Question 46

Which of the following doesn't form part of key factors that one should consider when planning re-use?

- a. The expected software lifetime
- b. The development schedule for the software
- c. The background, skills and experience of the development
- d. Object and function re-use software component that implement a single function

Question 47

Which one of the following does not part of the five principles dimensions to dependability?

- a. Maintainability
- b. Availability informally
- c. Safety informally
- d. Reliability informally

Question 48

Which one of the following doesn't form part of the four-overlapping stage in the lifetime of larger complex systems?

- a. Operations
- b. Maintenance
- c. Procurement
- d. Development

Question 49

Which one of the following falls amongst the benefits of software re-use?

- a. "not-invented-here" syndrome
- b. Lack of tool support
- c. Increase maintenance costs
- d. Reduced process risk

Question 50

XML-based service description includes definitions of XML?

- a. Syntax
- b. Elements
- c. Namespaces
- d. Special characters